

## Apnea

Sleep apnea is a condition that was discovered only recently (in 1965, in Europe). Between 70 and 90 percent of those who suffer from it are men, mostly middle-aged, and usually overweight. The vast majority snore heavily.

The problem is a neuromuscular one that results in the partial closing of an airway called the nasal pharynx while one sleeps. Up to 10% of the male population, up to 5% of all adult women, and up to 40% of all Americans over the age of sixty may suffer from some form of sleep apnea. There is some evidence that sleep apnea is caused by a defect in the central nervous system.

Scientists estimate that 30 million Americans snore -- and that 2.5 million of them suffer from sleep apnea. Snoring is common. It is a universal nuisance, a condition as common as the cold -- and the sources of countless confrontations between husbands and wives since time began. Snoring is caused by impaired breathing as we sleep, and the older we get the more likely we are to snore. Overall, one of every eight Americans snores. And it is estimated that almost 60% percent of the men and 45% of the women who have reached their sixties snore.

Light snoring may be a minor nuisance, but when snoring becomes loud and disruptive, and when it is accompanied by extreme sleepiness or sleep attacks during the daytime, it should be taken seriously. It could be a sign of sleep apnea, a life-threatening condition that results from the blockage of one's breathing during sleep. Those who suffer from sleep apnea actually stop breathing as they sleep -- perhaps as often as several hundred times per night. Patients seem to gasp for breath in their sleep, and the oxygen level in their blood becomes abnormally low.

In severe cases, the patient may actually spend more time not breathing than breathing! Those who suffer from apnea do a lot of loud and intermittent snoring during the night. They may have the sensation of choking, and may move about a great deal while in bed. Excessive sweating often occurs during sleep. There often is an irregular pounding of the heart as the patient gasps for breath. People who have sleep apnea may suffer from early-morning headaches and feel excessively sleepy throughout the day. Hallucinations sometimes occur while the patient is awake but feeling extremely sleepy. Memory deterioration, personality changes, and impotence are common. Rapid weight gains, often approaching obesity, often occur.

Sufferers are hard to awaken, and if they are suddenly awakened, they frequently do not know where they are. Upon awaking, those who suffer from the "snoring sickness" usually will not recall having experienced an apneic episode in their sleep. A period of disorientation sometimes occurs immediately after waking. During such periods, the individual may have difficulty with his memory and give inappropriate answers to questions, acting as if he did not hear it or failed to understand what was asked.

The excessive daytime sleepiness caused by sleep apnea may produce fatal pulmonary and cardiovascular complications. Cardiovascular problems resulting from the illness may include blood pressure, irregular heart rhythm, or deterioration of the heart muscle and its ability to pump blood, which can result in heart failure, heart attack or stroke. Apnea patients have twice the usual prevalence of hypertension, three times as much heart disease, and four times as much cerebrovascular disease. Other potential consequences include stroke, neuropsychiatric problems, cognitive impairment, sexual dysfunction, and injury due to accidents. Once a person develops sleep apnea, he appears to have it for life. At least a million people are severely impaired by the ailment, and twice that many are partially impaired. Unfortunately, 95% of them remain undiagnosed and untreated.

## Gastroesophageal Reflux

This is a disorder in which the patient can wake from sleep with a sour taste in the mouth or a burning discomfort or pain in the chest (heartburn).

The pain is usually substernal, with a feeling of general chest pain or tightness similar to that due to angina. The pain appears to be caused by gastric fluid or contents that have been regurgitated from the stomach into the esophagus and pharynx.

Awakenings from sleep associated with the discomfort can lead to a complaint of insomnia. This is a chronic, unremitting disease that is rarely cured. Lower esophageal sphincter pressures, gastric emptying, peristaltic efficiency of the esophagus, obesity or pregnancy may be predisposing conditions.

It is estimated that 7-10% of the general population has daily heartburn and as much as one-third has weekly heartburn. This disorder is more common in those over 40 years of age.

## Insomnia

The form that sleep problems take for the great majority of sleep sufferers is called insomnia -- the inability to fall asleep, stay asleep, or to sleep well. It is safe to say that almost all of us suffer from it in one form or another at some time in our lives.

Some people are inclined to suffer insomnia during times of stress, much as other people might suffer headaches or indigestion. A troubled marriage, a sick child, or an unrewarding job can often disrupt people's sleep. However, we tend to be troubled by the unusual, the uncommon, the unfamiliar things that occur in our lives -- and so, passing changes in our sleep patterns may alarm us.

The effects of insomnia are predictable. If sleep is reduced to five hours per night, even if only for a span of two nights, alertness, vigilance, and creativity all suffer. Sleepy people are less ambitious and less productive. Their performance on cognitive tasks involving memory, learning logical reasoning, arithmetic calculations, pattern recognition, complex verbal processing, and decision-making has been shown to be impaired by sleep loss.

Still, most of us will find that with the passing of the external event that has caused the insomnia, or with some simple changes in habit, regular sleep returns. However, for some, the solution is less simple.

Insomnia, then, is a symptom, not an illness. It is a condition in which people frequently are unable to get to sleep for as much as an hour after they turn in, awaken frequently during the night, or waken early and are unable to go back to sleep. Long term insomnia, however, can be serious enough to radically degrade the quality of the sufferer's life.

Researchers speculate that the body produces a sleep-inducing chemical, as yet unidentified, that accumulates while we are awake. As the chemical builds up over a period of time, we become sleepier and sleepier, and we eventually doze off. Our biological clock in our brains control the time at which we go to sleep and the time at which we awake. However, a number of conditions -- both internal and external -- can cause this process to go awry.

For example, pregnancy brings on insomnia. Women are more likely to suffer from insomnia than men by a ratio of 30-40 percent. In addition, appetite suppressants suppress sleep and smokers take longer to fall asleep and sleep more lightly than those who do not smoke. Shift workers have more trouble with insomnia than others with 40-80 percent have difficulty with sleep. Little wonder: the average shift worker sleeps between two and four hours less each night than the day worker.

## Narcolepsy

Narcolepsy is a neurological disorder, possibly resulting from a biochemical defect that affects the neurotransmitters in the central nervous system. It generally first appears in a individual's teens, but can occur at any age. It is rare, however, for narcolepsy to first appear in someone who is past forty.

Narcolepsy afflicts both sexes equally and tends to run through families. Sufferers tend to get poor grades in school and to have numerous study problems due to their inability to read, study, concentrate, memorize or pay attention. Later in life, this places limitations on their career alternatives, resulting in a low level of job satisfaction, frequent job loss, a loss of income, and low self-esteem.

Narcoleptics tend to have poor interpersonal relationships, become alcoholics, have high divorce rates, suffer from a decreased sexual libido and impotence, and experience a great deal of depression and other psychiatric problems.

One person in every 1,000 is affected and they complain of excessive daytime sleepiness, often expressed as tiredness, lack of energy or irresistible sleepiness. They may suddenly drop off to sleep at any time. Most commonly, attacks occur while the individual is watching TV, reading, listening to a lecture or engaging in an activity that does not have their full attention, but can also occur while walking, bike riding, eating, talking or driving.

## Periodic Limb Movement Disorder/Restless Leg Syndrome

Just before falling asleep, many people feel an uncomfortable, Not always painful, sensation deep in their thighs, calves and/or feet. Vigorous movement usually eases it enough for the sufferers to get to sleep, but the next day they may feel sleepy and fatigued. Sometimes, they may complain of an itching, crawling sensation in their legs, as if a current were running through them.

People suffering from periodic limb movement disorder experience irritability, a lack of motivation, poor job performance, and difficulty maintaining appropriate relationships within the family or society as a whole. What happens is that these people have experienced repetitive jerks and twitches of the leg muscles, followed by literally hundreds of related awakenings throughout the night. Their restorative sleep, the slow-wave and REM portions of their sleep cycle, has been disturbed.

The same symptoms can be experienced during the day, particularly when the sufferer is attempting to relax. The condition affects 2-5% of the population and is most common among those who are middle-aged and older. It is rare among children. It may be hereditary, or it might result from a variety of medical problems, such as kidney disease, withdrawal from certain medications, some metabolic disorders, diabetes, anemia, or disorders of the spinal or peripheral nerves.

Pregnant women frequently develop it, but the symptoms usually disappear after delivery. Families may have a predisposition to suffer from the ailment. Studies also have shown that the condition may result from a shortage of Vitamin E, iron or calcium; and vitamin and mineral supplements are often prescribed.

Sometime leg exercises will produce a satisfactory cure; on other occasions, drugs may be required. The ailment seems to affect men and women equally, and an attack can occur whenever the individual sits or lies down, although it is more frequent -- and severe -- at night.

If you suspect you have a sleep disorder, talk with your physician and if your doctor feels a referral to one of our sleep specialists or a sleep study is in order, simply call 800.373-7326 for a referral to our nearest sleep specialist or SleepMed laboratory.